CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. _____
FOR
SIMS HUGO NEU AND EL DORADO PROPERTY MANAGEMENT
FOR
POST-CLOSURE MAINTENANCE AND MONITORING
COVE CONTRACTORS LANDFILL FACILITY
SAN JOAQUIN COUNTY

The Discharger shall comply with this Monitoring and Reporting Program, with Title 27, California Code of Regulations, §20005, et seq. (hereafter Title 27), and with the *Standard Provisions and Reporting Requirements for Waste Discharge Requirements for Nonhazardous Solid Waste Discharges Regulated by Title 27 and/or Subtitle D (27 CCR §20005 et seq. and 40 CFR 258)*, dated April 2000, as ordered by Waste Discharge Requirements Order No. _____.

A. REQUIRED MONITORING REPORTS

Report	Due
1. Groundwater Monitoring (Section D.1–D.2)	**Quarterly**
2. Soil Gas Monitoring (See Section D.3)	**Quarterly**
3. Seep–Leachate Monitoring (Section D.4)	**As necessary**
4. Surface Water Monitoring (Section D.5)	**Quarterly**
5. Facility Monitoring (Section D.6)	**Annually**
6. Response to a Release (Section E.4) (Standard Provisions and Reporting Requirements, April 2000)	**As necessary**
7. Annual Monitoring Report (Section E.5)	**Annually**
8. Constituents of Concern	**5 Years**

B. REPORTING

The Discharger shall report monitoring data and information as required in this Monitoring and Reporting Program and as required in Waste Discharge Requirements Order No. _____ and the Standard Provisions and Reporting Requirements. Reports that do not comply with the required format will be **REJECTED** and the Discharger shall be deemed to be in noncompliance with the waste discharge requirements.

1. In reporting the monitoring data required by this program, the Discharger shall

arrange the data in tabular form so that the date, the constituents, the concentrations, and the units are readily discernible. The data shall be summarized to illustrate clearly the compliance with waste discharge requirements or the lack thereof. Reports shall be submitted in hard copy and digital format acceptable to the Regional Water Board.

2. The Discharger shall include a compliance evaluation summary with each monitoring report, as specified in Section E Reporting Requirements, below.

3. The Discharger shall report field and laboratory tests in each monitoring report. Quarterly, semiannual, annual, 5-year, and other reports shall be submitted to the Regional Water Board in accordance with the following Reporting Schedule for the calendar period in which samples were taken or observations made.

Reporting Schedule

Sampling Frequency	**Reporting Frequency**	**Report Period Ends**	**Report Due**
Monthly	Quarterly	Last Day of Month	**30 April** **31 July** **31 October** **31 January**
Quarterly	Quarterly	31 March 30 June 30 September 31 December	**30 April** **31 July** **31 October** **31 January**
Semiannually	Semiannually	30 June 31 December	**31 July** **31 January**
Annually	Annually	31 December	**31 January**

4. The Discharger shall monitor the constituents of concern in accordance with the frequencies listed in Tables I through IV, and with the analytical methods and analyte list specified in Table V.

5. The Discharger shall submit an **Annual Monitoring Summary Report** to the Regional Water Board covering the previous monitoring year. The annual report shall contain the information specified in Section E, Reporting Requirements, below, and a discussion of compliance with the waste discharge requirements and the Water Quality Protection Standard.

6. The Discharger shall report all results of **all monitoring** conducted at the site to the Regional Water Board in accordance with the Reporting Schedule, above, for the

calendar period in which samples were taken or observations made.

C. WATER QUALITY PROTECTION STANDARD AND COMPLIANCE PERIOD

1. Water Quality Protection Standards Report

The Water Quality Protection Standards shall consist of all constituents of concern, the concentration limit for each constituent of concern, the point of compliance, and all water quality monitoring points for each monitored medium.

The Water Quality Protection Standard for naturally occurring waste constituents consists of the constituents of concern, the concentration limits, and the point of compliance and all monitoring points. The Water Quality Protection Standards, or any modification thereto, shall be submitted in a report for review and approval.

The Water Quality Protection Standards Report shall:

a. Identify all distinct bodies of surface and ground water that could be affected in the event of a release from a Unit or portion of a Unit. This list shall include at least the uppermost aquifer and any permanent or ephemeral zones of perched groundwater underlying the facility.
b. Include a map showing the monitoring points and background monitoring points for the surface water monitoring program, groundwater monitoring program, and the soil gas monitoring program. The map shall include the point of compliance in accordance with §20405 of Title 27.
c. Evaluate the perennial direction(s) of groundwater movement within the uppermost groundwater zone(s).
d. Be certified by a California-registered civil engineer or geologist as meeting the requirements of Title 27.

If subsequent sampling of the background monitoring point(s) indicates significant water quality changes due to either seasonal fluctuations or other reasons unrelated to waste management activities at the site, the Discharger may request modification of the Water Quality Protection Standards**.**

2. Constituents of Concern

The Discharger shall monitor constituents of concern every five years beginning with the quarter ending **31 December 2007**. Subsequent monitoring efforts for constituents of concern will be carried out every fifth year thereafter alternately in the Summer reporting period (ending 30 June) and Winter reporting period (ending 31 December). The constituents of concern include all the waste constituents, their reaction products, and hazardous constituents that are reasonably expected to be in or derived from

waste contained in the Unit. The constituents of concern are those listed in Tables I through IV for the specified monitored medium, and Table V for the analyte list and methods. The Discharger shall monitor all constituents of concern every five years, or more frequently as required in accordance with a Corrective Action Program.

a. Monitoring Parameters for Constituents of Concern

Monitoring parameters are constituents of concern that are waste constituents, reaction products, hazardous constituents, and physical parameters that provide a reliable indication of a release from a Unit. The monitoring parameters for this facility are those listed in Table I through Table V for the specified monitored medium.

3. Concentration Limits

For a naturally occurring constituent of concern, the Discharger shall determine the concentration limit for each constituent of concern as follows:

a. By calculation in accordance with a statistical method pursuant to §20415 of Title 27(e)(8); or

b. By an alternate statistical method meeting the requirements of §20415(e)(8)(E) of Title 27.

The concentration limits for naturally occurring constituents of concern are listed below. The concentration limits are based on data from the background monitoring well, MW-5.

Constituent	**Concentration Limit**
Total dissolved solids	578 mg/L
Electrical conductivity	814 umhos/cm
Sulfate	16 mg/L
Nitrate	6.1 mg/L
pH	6.5–7.8 pH Units
Calcium	88.2 mg/L
Magnesium	50 mg/L
Sodium	62.5 mg/L
Potassium	4.7 mg/L
Manganese	0.93 mg/L
Bicarbonate	351 mg/L
Carbonate	< 5 mg/L

4. Monitoring Points

The monitoring points for this facility consist of the following:

Surface Water: SW-1, SW-2, SW-3

Groundwater: MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, and MW-10

Soil Gas: TGP-1, TGP-2, TGP-3, TGP-4

If new or additional wells, devices, or locations are installed or established, then those new wells, devices, and locations will become part of the monitoring point system.

5. Point of Compliance

For this facility, the points of compliance wells are as follows: MW-2, MW-3, MW-4, MW-6, MW-7, MW-8, MW-9, and MW-10. Title 27 §20164 defines the Point of Compliance for the water standard as a vertical surface located at the hydraulically downgradient limit of the Unit that extends through the uppermost aquifer underlying the Unit.

6. Background Monitoring Pont

The background (upgradient) groundwater monitoring point for the facility is MW-5. Title 27 §20164 defines the Background Monitoring Point as a well, device, or location specified in the waste discharge requirements at which monitoring for background water quality or background soil quality is conducted.

7. Compliance Period

The compliance period for the Unit shall be the number of years equal to the active life of the Unit plus the closure period. The compliance period is the minimum period during which the Discharger shall conduct a water quality monitoring program subsequent to a release from the Unit. The compliance period shall begin anew each time the Discharger initiates an evaluation monitoring program.

D. MONITORING

The Discharger shall comply with the evaluation, detection, and corrective action monitoring program provisions of Title 27 for groundwater and surface water in accordance with Evaluation, Detection, and Corrective Action Monitoring Specification D.1–D.22 of Waste Discharge Requirements, Order No. _____. The Discharger shall conduct all monitoring in accordance with a Sample Collection and Analysis Plan that shall include the quality assurance and quality control standards that shall be submitted for review and approval by the Regional Water Board.

All point of compliance monitoring wells established for the detection monitoring program shall constitute the monitoring points for the groundwater Water Quality Protection Standard. All detection monitoring program groundwater monitoring wells and surface water monitoring points shall be sampled and analyzed for monitoring parameters and

constituents of concern as indicated and listed in Table I through Table IV.

Method detection limits and practical quantitation limits shall be reported. All peaks shall be reported, including those that cannot be quantified and/or specifically identified. Metals shall be analyzed in accordance with the analytical methods listed in Table V.

The Discharger may use alternative analytical test methods, including new USEPA approved analytical methods, provided the methods have method detection limits equal to or lower than the analytical methods specified in this Monitoring and Reporting Program.

1. Groundwater

The Discharger shall operate and maintain a groundwater detection monitoring system that complies with the applicable provisions of §20415 and §20420 of Title 27 in accordance with an approved Detection Monitoring Program. The Discharger shall collect, preserve, and transport groundwater samples in accordance with the approved Sample Collection and Analysis Plan. The detection monitoring system shall be certified by a California-licensed professional civil engineer or geologist as meeting the requirements of Title 27.

a. The Discharger shall determine the groundwater flow rate and direction in the uppermost aquifer and in any zones of perched water and in any additional zone of saturation monitored pursuant to this Monitoring and Reporting Program, and report the results semiannually, including the times of highest and lowest elevations of the water levels in the wells.

b. Hydrographs of each well shall be submitted showing the elevation of groundwater with respect to the elevations of the top and bottom of the screened interval and the elevation of the pump intake. Hydrographs of each well shall be prepared quarterly and submitted annually.

c. Groundwater samples shall be collected from the point-of-compliance wells, background wells, and any additional wells added as part of the approved groundwater monitoring system. Samples shall be collected and analyzed for the monitoring parameters in accordance with the methods and frequency specified in Table I. Samples for the constituents of concern specified in Table I shall be collected and analyzed in accordance with the methods listed in Table V every five years.

d. The monitoring parameters shall also be evaluated each reporting period with regards to the cation/anion balance, and the results shall be graphically presented using a Stiff diagram, a Piper graph, or a Schueller plot each reporting period.

TABLE I

GROUNDWATER DETECTION AND CORRECTIVE ACTION MONITORING PROGRAM

Parameter	Units	Frequency
Field Parameters		
Groundwater Elevation	Ft. & 1/100s, MSL	Quarterly
Temperature	^{o}C	Quarterly
Electrical Conductivity	µmhos/cm	Quarterly
pH	pH units	Quarterly
Turbidity	Turbidity units	Quarterly
Monitoring Parameters (see Table V for test methods and analyte lists)		
Total Dissolved Solids	mg/L	Quarterly
Chloride	mg/L	Quarterly
Carbonate	mg/L	Quarterly
Bicarbonate	mg/L	Quarterly
Nitrate - Nitrogen	mg/L	Quarterly
Sulfate	mg/L	Quarterly
Calcium	mg/L	Quarterly
Magnesium	mg/L	Quarterly
Potassium	mg/L	Quarterly
Sodium	mg/L	Quarterly
Barium	mg/L	Quarterly
Total petroleum hydrocarbons	mg/L	Quarterly
Volatile Organic Compounds (USEPA Method 8260)	µg/L	Quarterly
Constituents of Concern (see methods and analyte list in Table V)		
Total Organic Carbon	mg/L	5 years
Inorganics (dissolved)	mg/L	5 years
Volatile Organic Compounds (USEPA Method 8260B)	µg/L	5 years
Semi-Volatile Organic Compounds (USEPA Method 8270C)	µg/L	5 years
Chlorophenoxy Herbicides (USEPA Method 8151A)	µg/L	5 years
Organophosphorus Compounds (USEPA Method 8141A)	µg/L	5 years

The groundwater monitoring system network shall consist of the following:

Location Identifier	Status
MW-2	Corrective Action/Detection Well
MW-3	Corrective Action/Detection Well
MW-4	Detection Well
MW-5	Background Well
MW-6	Corrective action/Detection Well
MW-7	Corrective action/Detection Well
MW-8	Corrective action/Detection Well
MW-9	Corrective action/Detection Well
MW-10	Corrective action/Detection Well

Any new or additional wells installed at the Discharger's facility will also be included in the groundwater monitoring system network. Such wells will be designated as evaluation, detection, and/or corrective action and will be included in the required monitoring program(s).

2. Corrective Action Monitoring

The Discharger shall collect and analyze all data necessary to assess the success of corrective action, i.e. source control by installation of the final cover. Corrective action monitoring shall be performed at the groundwater wells listed above as "Corrective Action" wells, and at the soil gas wells listed in Section D.3. Corrective action monitoring shall be used to evaluate the effectiveness of the final cover as a source control measure.

In the quarterly monitoring reports, the Discharger shall report their assessment of the effectiveness of the corrective action as compared to the analytical data from monitoring. This shall include a determination and presentation of the spatial distribution and concentration of each monitoring parameter throughout the affected saturated zones. In conjunction with the assessment, the Discharger shall monitor groundwater, surface water, and the unsaturated zone to evaluate changes in water quality resulting from the corrective action. Based on the data, assessment, and evaluation, the corrective action may be expanded or revised.

3. Soil Gas Monitoring

The Discharger shall operate and maintain a soil gas detection monitoring system that complies with the applicable provisions of Title 27 in accordance with an approved Detection Monitoring Program. The Discharger shall collect, preserve, and transport samples in accordance with the quality assurance/quality control standards contained

in the approved Sample Collection and Analysis Plan. Soil gas samples shall be collected from the monitoring devices and background monitoring devices of the approved soil gas monitoring system, and any additional gas monitoring devices installed as part of this Monitoring and Reporting Program No. R5-2007 -___. The collected samples shall be analyzed for the listed constituents in accordance with the methods and frequency specified in Table II. All monitoring parameters shall be graphed to show historical trends at each monitoring point.

Laboratory tests for volatile organic compounds, total petroleum compounds, methane, and carbon dioxide shall be performed quarterly, beginning in June 2007.

Laboratory results for methane and carbon dioxide values shall be crosschecked with field test results. Field instruments shall be calibrated prior to each use.

TABLE II

SOIL-GAS DETECTION AND CORRECTIVE ACTION MONITORING PROGRAM

Parameter	Units	Frequency
Field Parameters		
Methane	%	Quarterly
Carbon Dioxide	%	Quarterly
Pressures (barometric and gas)	inches Hg	Quarterly
Temperatures (ambient and gas)	^{o}C	Quarterly
Instrument calibration	not applicable	each use
Monitoring Parameters		
Volatile Organic Compounds (USEPA Method TO-15)	ug/cm^3	Quarterly
Total petroleum hydrocarbons (USEPA Method TO-3)	ug/cm^3	Quarterly
Methane / carbon dioxide (ASTM Method 1946)	%	Quarterly

4. Leachate And Seepage Monitoring

Leachate that seeps to the surface from the Unit shall be sampled and analyzed for the Monitoring Parameters listed in Table III upon detection. If seepage continues, sampling shall continue on a monthly basis. The volume of leachate shall be *estimated* and reported as Leachate Flow Rate (in gallons per day). Also, refer to Section E.4, Seepage, below.

TABLE III

LEACHATE AND SEEPAGE MONITORING PROGRAM

Parameter	Units	Frequency
Field Parameters		
Flow rate	gallons per day	On detection / monthly
Temperature	^{o}C	On detection / monthly
Electrical Conductivity	umhos/cm	On detection / monthly
pH	pH units	On detection / monthly
Turbidity	Turbidity units	On detection / monthly
Monitoring Parameters (see Table V for the analyte list and method)		
Total Dissolved Solids (TDS)	mg/L	On detection / monthly
Chloride	mg/L	On detection / monthly
Carbonate	mg/L	On detection / monthly
Bicarbonate	mg/L	On detection / monthly
Nitrate - Nitrogen	mg/L	On detection / monthly
Sulfate	mg/L	On detection / monthly
Calcium	mg/L	On detection / monthly
Magnesium	mg/L	On detection / monthly
Potassium	mg/L	On detection / monthly
Sodium	mg/L	On detection / monthly
Barium	mg/L	On detection / monthly
Total petroleum hydrocarbons (USEPA Method 8015M)	mg/L	On detection
Volatile Organic Compounds (USEPA Method 8260)	µg/L	On detection On detection
Semi-Volatile Organic Compounds (USEPA Method 8270C)	µg/L	
Chlorophenoxy Herbicides (USEPA Method 8151A)	µg/L	On detection
Organophosphorus Compounds (USEPA Method 8141A)	µg/L	On detection

5. Surface Water Monitoring

The Discharger shall install and operate a surface water detection monitoring system at Duck Creek (upgradient, mid-landfill, and downgradient) that complies with the applicable provisions of §20415 and §20420 of Title 27 in accordance with an approved Detection Monitoring Program. The Discharger shall sample and monitor the parameters listed in Table IV, below for the monitoring points.

TABLE IV

SURFACE WATER DETECTION MONITORING PROGRAM

Parameter	Units	Frequency
Field Parameters		
Water depth	feet and 1/10s	Semiannual
Temperature	^{o}C	Semiannual
Electrical Conductivity	µmhos/cm	Semiannual
pH	pH units	Semiannual
Turbidity	Turbidity units	Semiannual
Dissolved oxygen	mg/L	Semiannual
Monitoring Parameters (see Table V for the test methods and analyte list)		
Total Dissolved Solids (TDS)	mg/L	Semiannual
Carbonate	mg/L	Semiannual
Bicarbonate	mg/L	Semiannual
Chloride	mg/L	Semiannual
Nitrate - Nitrogen	mg/L	Semiannual
Sulfate	mg/L	Semiannual
Calcium	mg/L	Semiannual
Manganese	mg/L	Semiannual
Magnesium	mg/L	Semiannual
Potassium	mg/L	Semiannual
Sodium	mg/L	Semiannual
Barium	mg/L	Semiannual
Volatile Organic Compounds (USEPA Method 8260B)	µg/L	Semiannual
Constituents of Concern (see methods and analyte list in Table V)		
Total Organic Carbon	mg/L	5 years
Inorganics (dissolved)	mg/L	5 years
Volatile Organic Compounds (USEPA Method 8260B)	µg/L	5 years
Semi-Volatile Organic Compounds (USEPA Method 8270C)	µg/L	5 years
Chlorophenoxy Herbicides (USEPA Method 8151A)	µg/L	5 years
Organophosphorus Compounds (USEPA Method 8141A)	µg/L	5 years

The Discharger shall establish three monitoring points for surface water detection monitoring. Background and detection monitoring points shall be established as follows: SW-1 (background / upgradient at Duck Creek), SW-2 (mid-landfill at Duck Creek), SW-3 (downgradient of Landfill at Duck Creek). The upgradient location (SW-1) shall be equipped with a device for recording the depth of water in the creek (i.e., staff gauge). For all monitoring and background monitoring points assigned to surface water detection monitoring, samples shall be collected and analyzed for the monitoring

parameters in accordance with the methods and frequency specified in Table IV. Every five years, all surface water monitoring samples shall be collected and analyzed for the constituents of concern specified in Table IV. All monitoring parameters shall be graphed to show historical trends at each sample location, including the water depth in Duck Creek.

6. Facility Monitoring

Facility monitoring shall include annual inspections and storm event inspections.

a. Facility Inspection–Annual

Annually, prior to the anticipated rainy season, but no later than **30 September**, the Discharger shall conduct an inspection of the facility. The inspection shall assess damage to the drainage control system, groundwater monitoring equipment (including wells, etc.), soil gas monitoring system, and shall include the Standard Observations contained in this Order and in **the Standard Provisions**. Any necessary construction, maintenance, or repairs shall be completed by **31 October**. In the Annual Monitoring Report, due **31 January** of each year, the Discharger shall submit a Facility Monitoring Report describing the results of the inspection and the repair measures implemented, including photographs of the problem and the repairs.

b. Storm Events–Inspections

The Discharger shall inspect all precipitation, diversion, and drainage facilities for damage **within 7 days** following *major storm events*. The Discharger shall complete necessary repairs **within 30 days** of the inspection. The Discharger shall report any damage and subsequent repairs within 45 days of completion of the repairs, including photographs of the problem and the repairs.

E. REPORTING REQUIREMENTS

1. Records

The Discharger shall retain records of all monitoring information, including all calibration and maintenance records, all original strip chart recordings of continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained throughout the life of the facility including the post-closure period. Such legible records shall show the following for each sample:

a. Sample identification and the monitoring point or background monitoring point from which it was taken, along with the identity of the individual who obtained the sample;
b. Date, time, and manner of sampling;
c. Date and time that analyses were started and completed, and the name of the personnel and laboratory performing each analysis;

d. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used;
e. Calculation of results; and
f. Results of analyses, and the MDL and PQL for each analysis.

2. Transmittal Letter

The Discharger shall provide, and accompany with each report, a transmittal letter that explains the essential points of the report. At a minimum, the transmittal letter shall identify any violations found since the last report was submitted, and if the violations were corrected. If no violations have occurred since the last submittal, the Discharger shall state that information in the transmittal letter. The transmittal letter shall also provide that a discussion of any violations found since the last report was submitted, and a description of the actions taken or planned for correcting those violations, and references to previously submitted time schedules as contained in the accompanying report.

3. Compliance Evaluation Summary

Each monitoring report shall include a compliance evaluation summary. The evaluation summary shall contain at least:

a. For each monitoring point and background monitoring point addressed by the report, a description of:
   1) The time of water level measurement;
   2) The type of pump - or other device - used for purging and the elevation of the pump intake relative to the elevation of the screened interval;
   3) The method of purging (the pumping rate; the equipment and methods used to monitor field pH, temperature, and conductivity during purging; the calibration of the field equipment; results of the pH, temperature, conductivity, and turbidity testing; and the method of disposing of the purge water) to remove all portions of the water that was in the well bore while the sample was being taken;
   4) The type of pump - or other device - used for sampling, if different than the pump or device used for purging; and
   5) A statement that the sampling procedure was conducted in accordance with the approved Sampling and Analysis Plan.
b. A map or aerial photograph showing the locations of observation stations, monitoring points, and background monitoring points.
c. For each groundwater body, a description and graphical presentation of the gradient and direction of groundwater flow under/around the Unit, and the groundwater flow rate, based upon water level elevations taken prior to the collection of the water quality data submitted in the report.

d. Laboratory statements of results of all analyses evaluating compliance with requirements.

e. An evaluation of the effectiveness of the run-off/run-on control facilities.

f. A summary and certification of completion of all Standard Observations for the Unit, for the perimeter of the Unit, and for the receiving waters. Standard observations for INACTIVE or CLOSED landfill units shall be conducted monthly during the wet season (1 October to 30 April) and quarterly during the dry season (1 May to 30 September). The Standard Observations shall include:

1) For the Unit:
   a) Evidence of ponded water at any point on the facility (show affected area on map);
   b) Evidence of odors - presence or absence, characterization, source, and distance of travel from source; and
   c) Evidence of erosion and/or of day-lighted refuse.

2) Along the perimeter of the Unit:
   a) Evidence of liquid leaving or entering the Unit, estimated size of affected area, and flow rate (show affected area on map);
   b) Evidence of odors - presence or absence, characterization, source, and distance of travel from source; and
   c) Evidence of erosion and/or of day-lighted refuse.

3) For receiving waters:
   a) Floating and suspended materials of waste origin - presence or absence, source, and size of affected area;
   b) Discoloration and turbidity - description of color, source, and size of affected area;
   c) Evidence of odors - presence or absence, characterization, source, and distance of travel from source;
   d) Evidence of water uses - presence of water-associated wildlife;
   e) Flow rate; and
   f) Weather conditions - wind direction and estimated velocity, total precipitation during recent days and on the day of observation.

4. Seepage

The Discharger shall report by telephone any seepage from the disposal area **immediately** after it is discovered. The Discharger shall file a written report with the Regional Water Board **within seven days**, containing at least the following information:

a. A map showing the location(s) of seepage;

b. An estimate of the flow rate in gallons per day;

c. A description of the nature of the discharge (e.g., all pertinent observations and analyses);
d. Verification that samples have been submitted for analyses of the Monitoring Parameters listed in Table III of this Monitoring and Reporting Program No. R5 - 2007 ____, and an estimated date that the results will be submitted to the Regional Water Board; and
e. Corrective measures underway or proposed, and corresponding time schedule.

5. Annual Monitoring Summary Report

The Discharger shall submit an **Annual Monitoring Summary Report** to the Regional Water Board covering the reporting period of the previous monitoring year. This report shall contain the following information:

a. All monitoring parameters and constituents of concern shall be graphed so as to show historical trends at each monitoring point and background monitoring point, for all samples taken within at least the previous five calendar years. Each such graph shall plot the concentration of one or more constituents for the period of record for a given monitoring point or background monitoring point, at a scale appropriate to show trends or variations in water quality. The graphs shall plot each datum, rather than plotting mean values. For any given constituent or parameter, the scale for background plots shall be the same as that used to plot downgradient data. Graphical analysis of monitoring data may be used to provide significant evidence of a release.
b. All historical monitoring data, including data for the previous year, shall be submitted in tabular form as well as in an excel file format. The Regional Water Board regards the submittal of data in hard copy and in digital format as "...the form necessary for..." statistical analysis [Title 27 CCR §20420(h)], in that this facilitates periodic review by the Regional Water Board.
c. A comprehensive discussion of the compliance record, and the result of any corrective actions taken or planned which may be needed to bring the Discharger into full compliance with the waste discharge requirements.
d. A map showing the area and elevations in which repairs to settlement areas have been completed during the previous calendar year and a comparison to final closure design contours.
e. A written summary of the monitoring results, indicating any changes made or observed since the previous annual report
f. An evaluation of the effectiveness of the surface water control facilities. A description of any/all control facilities' failures and repairs shall be included along with the evaluation.

The Discharger shall implement the above monitoring program on the effective date of this Program.

Ordered by:_____
PAMELA C. CREEDON, Executive Officer

_____
(Date)

MLB: 04/24/07

TABLE V

CONSTITUENTS OF CONCERN & APPROVED USEPA ANALYTICAL METHODS

Inorganics (dissolved)	**USEPA Method**
Aluminum	6010
Antimony	7041
Barium	6010
Beryllium	6010
Cadmium	7131A
Chromium	6010
Cobalt	6010
Copper	6010
Silver	6010
Tin	6010
Vanadium	6010
Zinc	6010
Iron	6010
Manganese	6010
Arsenic	7062
Lead	7421
Mercury	7470A
Nickel	7521
Selenium	7742
Thallium	7841
Cyanide	9010B
Sulfide	9030B

General Chemistry	**USEPA Method**
Total Dissolved Solids	160.1
Carbonate	300 Series
Bicarbonate	300 Series
Chloride	300 Series
Nitrate - Nitrogen	300.00
Sulfate	300 Series
Calcium	6010
Magnesium	6010
Potassium	6010
Sodium	6010
Conductivity	120.1

Organic Compounds	**USEPA Method**
Total organic carbon	9060
Total petroleum hydrocarbons (gas and diesel)	8015M

TABLE V

CONSTITUENTS OF CONCERN & APPROVED USEPA ANALYTICAL METHODS

Volatile Organic Compounds

USEPA Method 8260

Acetone
Acetonitrile (Methyl cyanide)
Acrolein
Acrylonitrile
Allyl chloride (3-Chloropropene)
Benzene
Bromochloromethane (Chlorobromomethane)
Bromodichloromethane (Dibromochloromethane)
Bromoform (Tribromomethane)
Carbon disulfide
Carbon tetrachloride
Chlorobenzene
Chloroethane (Ethyl chloride)
Chloroform (Trichloromethane)
Chloroprene
Dibromochloromethane (Chlorodibromomethane)
1,2-Dibromo-3-chloropropane (DBCP)
1,2-Dibromoethane (Ethylene dibromide; EDB)
o-Dichlorobenzene (1,2-Dichlorobenzene)
m-Dichlorobenzene (1,3-Dichlorobenzene)
p-Dichlorobenzene (1,4-Dichlorobenzene)
trans- 1,4-Dichloro-2-butene
Dichlorodifluoromethane (CFC 12)
1,1 -Dichloroethane (Ethylidene chloride)
1,2-Dichloroethane (Ethylene dichloride)
1,1 -Dichloroethylene (1, l-Dichloroethene; Vinylidene chloride)
cis- l, 2-Dichloroethylene (cis- 1,2-Dichloroethene)
trans- l, 2-Dichloroethylene (trans- 1,2-Dichloroethene)
1,2-Dichloropropane (Propylene dichloride)
1,3-Dichloropropane (Trimethylene dichloride)
2,2-Dichloropropane (Isopropylidene chloride)
1,1 -Dichloropropene
cis- 1,3-Dichloropropene
trans- l,3-Dichloropropene
Di-isopropylether (DIPE)
Ethanol
Ethyltertiary butyl ether
Ethylbenzene
Ethyl methacrylate
Hexachlorobutadiene
Hexachloroethane
2-Hexanone (Methyl butyl ketone)
Isobutyl alcohol

TABLE V

CONSTITUENTS OF CONCERN & APPROVED USEPA ANALYTICAL METHODS

Methacrylonitrile
Methyl bromide (Bromomethane)
Methyl chloride (Chloromethane)
Methyl ethyl ketone (MEK; 2-Butanone)
Methyl iodide (Iodomethane)
Methyl t-butyl ether
Methyl methacrylate
4-Methyl-2-pentanone (Methyl isobutyl ketone)
Methylene bromide (Dibromomethane)
Methylene chloride (Dichloromethane)
Naphthalene
Propionitrile (Ethyl cyanide)
Styrene
Tertiary amyl methyl ether
Tertiary butyl alcohol
1,1,1,2-Tetrachloroethane
1,1,2,2-Tetrachloroethane
Tetrachloroethylene (Tetrachloroethene; Perchloroethylene; PCE)
Toluene
1,2,4-Trichlorobenzene
1,1,1 -Trichloroethane, Methylchloroform
1,1,2-Trichloroethane
Trichloroethylene (Trichloroethene; TCE)
Trichlorofluoromethane (CFC- 11)
1,2,3-Trichloropropane
Vinyl acetate
Vinyl chloride (Chloroethene)
Xylene (total)

Semi-Volatile Organic Compounds

USEPA Method 8270 - base, neutral, & acid extractables
Acenaphthene
Acenaphthylene
Acetophenone
2-Acetylaminofluorene (2-AAF)
Aldrin
4-Aminobiphenyl
Anthracene
Benzo [a] anthracene (Benzanthracene)
Benzo [b] fluoranthene
Benzo [k] fluoranthene
Benzo [g, h, i] perylene
Benzo [a] pyrene
Benzyl alcohol
Bis(2-ethylhexyl) phthalate
alpha-BHC

TABLE V

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beta-BHC
delta-BHC
gamma-BHC (Lindane)
Bis(2-chloroethoxy)methane
Bis(2-chloroethyl) ether (Dichloroethyl ether)
Bis(2-chloro-1-methyethyl) ether (Bis(2-chloroisopropyl) ether; DCIP)
4-Bromophenyl phenyl ether
Butyl benzyl phthalate (Benzyl butyl phthalate)
Chlordane
p-Chloroaniline
Chlorobenzilate
p-Chloro-m-cresol (4-Chloro-3-methylphenol)
2-Chloronaphthalene
2-Chlorophenol
4-Chlorophenyl phenyl ether
Chrysene
o-Cresol (2-methylphenol)
m-Cresol (3-methylphenol)
p-Cresol (4-methylphenol)
4,4'-DDD
4,4'-DDE
4,4'-DDT
Diallate
Dibenz[a,h]anthracene
Dibenzofuran
Di-n-butyl phthalate
3,3'-Dichlorobenzidine
2,4-Dichlorophenol
2,6-Dichlorophenol
Dieldrin
Diethyl phthalate
p-(Dimethylamino)azobenzene
7,12-Dimethylbenz[a]anthracene
3,3'-Dimethylbenzidine
2,4-Dimehtylphenol (m-Xylenol)
Dimethyl phthalate
m-Dinitrobenzene
4,6-Dinitro-o-cresol (4,6-Dinitro-2-methylphenol)
2,4-Dinitrophenol
2,4-Dinitrotoluene
2,6-Dinitrotoluene
Di-n-octyl phthalate
Diphenylamine
Endosulfan I
Endosulfan II
Endosulfan sulfate
Endrin

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Endrin aldehyde
Ethyl methanesulfonate
Famphur
Fluoranthene
Fluorene
Heptachlor
Heptachlor epoxide
Hexachlorobenzene
Hexachlorocyclopentadiene
Hexachloropropene
Indeno(1,2,3-c,d)pyrene
Isodrin
Isophorone
Isosafrole
Kepone
Methapyrilene
Methoxychlor
3-Methylcholanthrene
Methyl methanesulfonate
2-Methylnaphthalene
1,4-Naphthoquinone
1-Naphthylamine
2-Naphthylamine
o-Nitroaniline (2-Nitroaniline)
m-Nitroaniline (3-Nitroaniline)
p-Nitroaniline (4-Nitroaniline)
Nitrobenzene
o-Nitrophenol (2-Nitrophenol)
p-Nitrophenol (4-Nitrophenol)
N-Nitrosodi-n-butylamine (Di-n-butylnitrosamine)
N-Nitrosodiethylamine (Diethylnitrosamine)
N-Nitrosodimethylamine (Dimethylnitrosamine)
N-Nitrosodiphenylamine (Diphenylnitrosamine)
N-Nitrosodipropylamine (N-Nitroso-N-dipropylamine; Di-n-propylnitrosamine)
N-Nitrosomethylethylamine (Methylethylnitrosamine)
N-Nitrosopiperidine
N-Nitrosospyrrolidine
5-Nitro-o-toluidine
Pentachlorobenzene
Pentachloronitrobenzene (PCNB)
Pentachlorophenol
Phenacetin
Phenanthrene
Phenol
p-Phenylenediamine
Polychlorinated biphenyls (PCBs; Aroclors)
Pronamide

TABLE V

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Pyrene
Safrole
1,2,4,5-Tetrachlorobenzene
2,3,4,6-Tetrachlorophenol
o-Toluidine
Toxaphene
2,4,5-Trichlorophenol
0,0,0-Triethyl phosphorothioate
sym-Trinitrobenzene

Chlorophenoxy Herbicides

USEPA Method 8l51A
2,4-D (2,4-Dichlorophenoxyacetic acid)
Dinoseb (DNBP; 2-sec-Butyl-4,6-dinitrophenol)
Silvex (2,4,5-Trichlorophenoxypropionic acid; 2,4,5-TP)
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)

Organophosphorus Compounds

USEPA Method 8141A
Atrazine
Chlorpyrifos
0,0-Diethyl 0-2-pyrazinyl phosphorothioate (Thionazin)
Diazinon
Dimethoate
Disulfoton
Ethion
Methyl parathion (Parathion methyl)
Parathion
Phorate
Simazine